

# V&V Reference Report

## L2 ASCDS Version : 8.1.1

Observation 62252 - L2 Version 4  
Chandra X-Ray Center

L2 Processing Date : Nov 29 2009

## Contents

<b>1</b>	<b>Front</b>	<b>2</b>
<b>2</b>	<b>OBI</b>	<b>3</b>
2.1	OBI . . . . .	3
2.1.1	Images . . . . .	3
2.1.2	Bias . . . . .	3
2.1.3	Parameters . . . . .	4
2.1.4	Events . . . . .	4
2.2	Compared Parameters . . . . .	5
2.3	Star Slots . . . . .	6
2.4	FID Slots . . . . .	6
<b>A</b>	<b>Summary</b>	<b>7</b>
A.1	Status . . . . .	7
A.2	Comments . . . . .	7

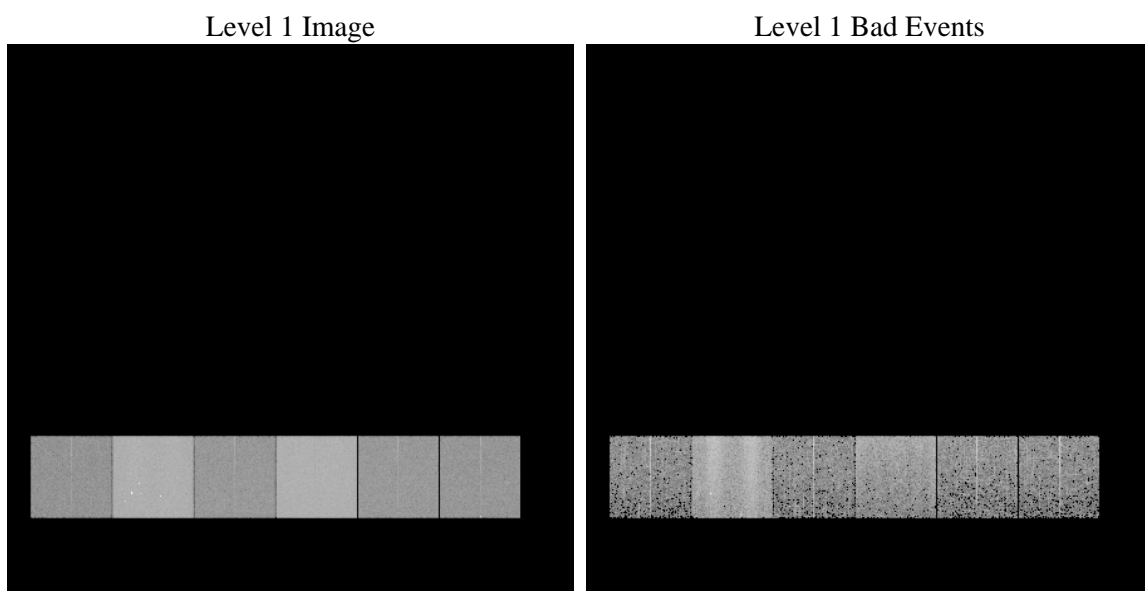
# 1 Front

seq_num	&#160	Sequence number
obs_id	62252	Observation id
title	ACIS-456789 diagnostics	Proposal title
observer	CHANDRA engineering request/realtime commanding	Principal investig
object	&#160	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	0.0	Observer's specified target RA
dec_targ	0.0	Observer's specified target Dec
ra_nom	338.02160832379	Nominal RA
dec_nom	-35.023591605209	Nominal Dec
roll_nom	276.40553935469	Nominal Roll
revision	4	Processing version of data
ontime	2886.7193545625	Sum of GTIs [s]
livetime	2850.1659759213	Livetime [s]
ontime4	1123.7245515659	Sum of GTIs [s]
ontime5	3061.7739710435	Sum of GTIs [s]
ontime6	1243.6019918025	Sum of GTIs [s]
ontime7	2886.7193545625	Sum of GTIs [s]
ontime8	1257.8620405346	Sum of GTIs [s]
ontime9	1201.345261924	Sum of GTIs [s]
l2events	903072	Number of level 2 events

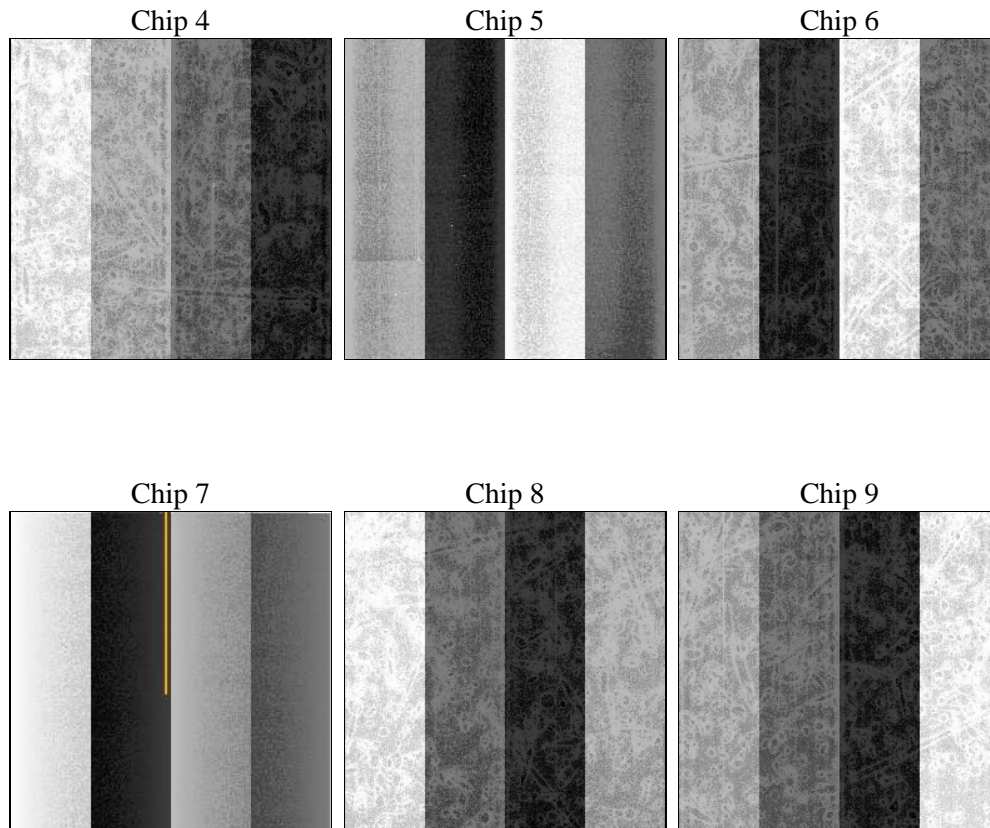
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	<table><tr><td>sched_exp_time</td><td>0.0</td><td>Scheduled observation exposure time</td></tr><tr><td>ontime</td><td>2886.7193545625</td><td>Sum of GTIs [s]</td></tr><tr><td>ontime4</td><td>1123.7245515659</td><td>Sum of GTIs [s]</td></tr><tr><td>ontime5</td><td>3061.7739710435</td><td>Sum of GTIs [s]</td></tr><tr><td>ontime6</td><td>1243.6019918025</td><td>Sum of GTIs [s]</td></tr><tr><td>ontime7</td><td>2886.7193545625</td><td>Sum of GTIs [s]</td></tr><tr><td>ontime8</td><td>1257.8620405346</td><td>Sum of GTIs [s]</td></tr><tr><td>ontime9</td><td>1201.345261924</td><td>Sum of GTIs [s]</td></tr><tr><td>l1events</td><td>1063576</td><td>Number of level 1 events</td></tr></table>	sched_exp_time	0.0	Scheduled observation exposure time	ontime	2886.7193545625	Sum of GTIs [s]	ontime4	1123.7245515659	Sum of GTIs [s]	ontime5	3061.7739710435	Sum of GTIs [s]	ontime6	1243.6019918025	Sum of GTIs [s]	ontime7	2886.7193545625	Sum of GTIs [s]	ontime8	1257.8620405346	Sum of GTIs [s]	ontime9	1201.345261924	Sum of GTIs [s]	l1events	1063576	Number of level 1 events
sched_exp_time	0.0	Scheduled observation exposure time																												
ontime	2886.7193545625	Sum of GTIs [s]																												
ontime4	1123.7245515659	Sum of GTIs [s]																												
ontime5	3061.7739710435	Sum of GTIs [s]																												
ontime6	1243.6019918025	Sum of GTIs [s]																												
ontime7	2886.7193545625	Sum of GTIs [s]																												
ontime8	1257.8620405346	Sum of GTIs [s]																												
ontime9	1201.345261924	Sum of GTIs [s]																												
l1events	1063576	Number of level 1 events																												
ascdsver	8.1.1	ASCDS version number																												
caldsver	4.1.4	&#160																												
date	2009-11-29T20:12:47	Date and time of file creation																												
revision	3	Processing version of data																												

### 2.1.4 Events

	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	107747	285727	127918	291923	130868	119393
rejected events	17070	46207	17879	26874	18554	16732
rejected %	15%	16%	13%	9%	14%	14%

	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	20909	26309	31145	49208	40339	31393
	19%	9%	24%	16%	30%	26%
grade 1 events	94	224	130	131	166	131
	0%	0%	0%	0%	0%	0%
grade 2 events	48903	92648	51279	74093	43919	45380
	45%	32%	40%	25%	33%	38%
grade 3 events	2076	12542	3241	23106	4241	3149
	1%	4%	2%	7%	3%	2%
grade 4 events	2012	10788	3158	20826	4248	3284
	1%	3%	2%	7%	3%	2%
grade 5 events	837	4726	1053	4017	1128	1037
	0%	1%	0%	1%	0%	0%
grade 6 events	16777	97233	21216	97816	19882	19455
	15%	34%	16%	33%	15%	16%
grade 7 events	16139	41257	16696	22726	16945	15564
	14%	14%	13%	7%	12%	13%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
Detector	ACIS-456789	ACIS-456789	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	On-chip summing requested	N	N
Observation mode	SECONDARY	SECONDARY	Subarray requested	NONE	NONE
Pointing RA	0	338.0216083237904	Alternating exposures requested	N	N
Pointing Dec	0	-35.02359160520927	Primary exposure time	0.000000	3.2
Pointing Roll	0.0	276.4055393546912			
SIM focus pos (mm)	-0.684267	-1.428180813131781			
SIM defocus (mm)	0	0.1051558262725154			
SIM translation stage pos (mm)	-190.132523	250.466033080201			
SIM translation stage offset (mm)	0	-0.01005468664627074			
Observation start time	62587294.611	62587293.84282			
Observation start date	1999-12-26T09:21:35	1999-12-26T09:21:33			
Observation end time	62633153.113	62633152.344482			
Observation end date	1999-12-26T22:05:53	1999-12-26T22:05:52			
Read mode	TIMED	TIMED			

## 2.3 Star Slots

## 2.4 FID Slots

# A Summary

## A.1 Status

V&V Scientist	Jen Lauer
V&V Date (YYYY-MM-DD)	2010.01.26
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	2.8867193545625

## A.2 Comments

The focal plane temperature is approximately -110C during this observation. This reprocessing of the data applies no CTI correction because none is available for this temperature at present.

The ACIS CTI correction has not been calibrated at this temperature, because it was early in the mission, and ACIS had not yet been lowered to the standard -119.7 C. Both front and back illuminated chips are affected. However a T\_GAIN correction has been applied to the BI chips (ACIS-5 and ACIS-7) data included here.

The ACIS spectral response calibration is less accurate at these warmer temperatures than it is at -119.7 C. Users whose science objectives depend on the most accurate spectral response (ie: fitting line-rich spectra) may notice an effect. Users whose science objectives do not depend on the most accurate spectral response should not notice an effect.